

CLAIMS

1. Mixtures of additives in granular form comprising:

- one or more stabilizers for organic polymers;
- one or more organic or inorganic pigments;
- 5 and/or
- one or more dyes;

obtained by extrusion at a temperature capable of enabling the partial or total melting of the lowest-¹¹² melting component.

10 2. The mixtures of additives in granular form according to claim 1, wherein the stabilizers for organic polymers are selected from the following groups: antioxidants, ultraviolet-ray and light stabilizers, metal-deactivators, phosphites and phosphonites, hydroxylamines, nitrons, thiosynergizing agents, 15 agents capable of destroying peroxides, polyamide stabilizers, basic co-stabilizers, nucleating agents, fillers and reinforcing agents, other additives, benzofuranones and indolinones.

20 3. The mixtures of additives in granular form according to claim 2, wherein the antioxidants are selected from alkylated monophenols, alkylthiomethylphenols, hydroquinones and alkylated hydroquinones, tocopherols, hydroxylated thiodiphenyl ethers, alkylidene- 25 bisphenols, benzyl compounds containing O, N or S,

- hydroxybenzylated malonates, aromatic hydroxybenzyl compounds, triazine compounds, benzylphosphonates, acylaminophenols, esters of β -(3,5-di-t-butyl-4-hydroxyphenyl)propionic acid with monohydric or polyhydric alcohols, esters of β -(5-di-t-butyl-4-hydroxyphenyl)propionic acid with monohydric or polyhydric alcohols, esters of β -(3,5-dicyclohexyl-4-hydroxyphenyl)propionic acid with monohydric or polyhydric alcohols, esters of 3,5-di-t-butyl-4-hydroxyphenyl acetic acid with monohydric or polyhydric alcohols, amides of β -(3,5-di-t-butyl-4-hydroxyphenyl)propionic acid, ascorbic acid, aminic antioxidants.
4. The mixtures of additives in granular form according to claim 2, wherein the ultraviolet ray and light stabilizers are selected from derivatives of 2-(2'-hydroxyphenyl)benzotriazoles, derivatives of 2-hydroxybenzophenones, esters of benzoic acids optionally substituted, acrylates, nickel compounds, sterically hindered amines and their N-alkoxy derivatives, oxamides, 2-(2-hydroxyphenyl)-1,3,5-triazine.
5. The mixtures of additives in granular form according to claim 2, wherein the other additives are selected from plasticizers, lubricants, emulsifying agents,

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rheological additives, catalysts, slip agents, optical brighteners, flame-retardants (bromurates,¹¹² chlorurates,¹¹² phosphorates and phosphorous/halogen mixtures),¹¹² antistatic agents, blowing agents.

- 5 6. The mixtures of additives in granular form according to claim 1, wherein the organic pigments are selected from organic pigments of the azo (type), azomethines, anthraquinones, perilenes, dioxazines, thioindigo reds, quinacridones, phthalocyanines, 10 blue indanthrones, carbazoles, isoindolinones, isoindolones, benzimidazolines, or their metal salts.
- 15 7. The mixtures of additives in granular form according to claim 1, wherein the inorganic pigments are selected from metal oxides (such as) titanium dioxide, iron oxide of various colors, zinc oxide, carbon black, filler pigments (such as) talc, China clay, barites, carbonates, silicates, sulfosilicates.
- 20 8. The mixtures of additives in granular form according to claim 1, wherein the dyes, a term which herein also indicates bleaching agents, are selected from dyes which are soluble, insoluble or only slightly soluble in water.
- 25 9. The mixtures of additives in granular form according to claim 8, wherein the dyes which are soluble in

water are selected from acid dyes such as nitro dyes, aminoketones, ketone-imines, methines, nitro-diphenylamines, quinolines, aminonaphthoquinones, coumarins, anthroquinones, azo dyes such as monoazo or diazo dyes.

10. The mixtures of additives in granular form according to claim 9, wherein the dyes which are soluble in water contain one or more anionic groups soluble in water such as a carboxylic acid group or a sulfonic acid group and they are generally in the form of salts such as lithium, sodium, potassium or ammonium salts.

11. The mixtures of additives in granular form according to claim 8, wherein the dyes which are soluble in water are salts such as sulfates, metasulfates, or -onium chlorides or metal halides such as tetrachlorozincates of azo dyes (monoazo, diazo or polyazo); anthraquinones, phthalocyanines, diarylmethane and triarylmethane; methine, polymethine and azomethine; thiazoles, ketone-imines, acridines, cyanines, nitro dyes, quinolines, benzimidazoles, xanthenes, azines, oxazines, thiazines and triazines which have at least one quaternary nitrogen in the molecule.

12. The mixtures of additives in granular form according to claim 1, wherein the dyes which are insoluble or

only slightly soluble in water are selected from dyes containing sulfur, disperse dyes or vat dyes.

13. The mixtures of additives in granular form according to claim 12, wherein the disperse dyes are selected from nitro dyes, aminoketones, ketone-imines, methi-
nes, polymethines, diphenylamines, quinolines, benz-
imidazoles, xanthene, oxazines, aminonaphthoqui-
nones, coumarins which do not contain carboxylic acid or sulfonic acid groups and are, in particular,¹¹²
anthraquinones and azo dyes (such as monoazo and di-
azo dyes.
14. The mixtures of additives in granular form according to claim 12, wherein the vat dyes are those applied to fabrics in dispersed solid form and, after devel-
opment, are still present in a form which is insoluble in water.
15. Use of the mixtures of additives according to any of the previous claims in the stabilization and dyeing of organic polymers.
16. Polymeric compositions containing an organic polymer and an effective quantity of one of the mixtures of additives according to any of the previous claims.¹¹²
17. End-products obtained from the processing of the polymeric compositions according to claim 16.